
FOLIO

NSERC Awards \$1,460,233 to University Researchers

The Natural Sciences and Engineering Research Council (NSERC) recently announced the awarding of \$32.2 million in grants to Canadian university professors who are conducting research and development in areas of socio-economic benefit to Canada. The disbursement comes under the Strategic Grants Program, a program designed to increase research in certain identified areas and to promote the transfer of university-based technology to the user sector.

"Biotechnology," "Communications and Computers," "Energy," "Environmental Toxicology," "Food/Agriculture," "Industrial Materials and Processes," "Oceans," and "Open" are the areas which have attracted NSERC dollars.

University of Alberta researchers were awarded a total of \$1,460,233. The pertinent details follow.

S.E. Hrudey, Civil Engineering, \$34,500 for the study of "Anaerobic biological treatment of phenolics," with D. Westlake, N. Berkowitz, D.W. Smith and P.M. Fedorak.
L.J. Reha-Krantz, Genetics, \$43,263 for "Developing and testing mutator DNA polymerases as useful reagents for in vitro mutagenesis."
D.E. Taylor, Microbiology, \$39,717 for "Cloning of *Campylobacter jejuni* genes for use as diagnostic DNA probes."
J.D. Dale, Mechanical Engineering, \$55,279 for "The Alberta home heating research facility," with T.W. Forest, G.W. Sadler, and D.J. Wilson.
D.I. Gough, Physics, \$44,308 for "Magnetometer array and magnetotelluric studies of geothermal areas."
F. Hron, Physics, \$82,680 to study "Computer inversion of geophysical data using inverse methods and direct numerical modeling," with M. Razavy.

F.W. Jones, Physics, \$53,000 for "A study of sources and uses of geothermal energy in Alberta."

P.K. Kaiser, Civil Engineering, \$75,000 for the study of "Deep borehole rupture mechanics," with J.D. Scott.

J. Masliyah, Chemical Engineering, \$45,850 for "Application of inclined plate settler to separation of bitumen sand slurry," with K. Nandakumar.

A.A. Offenberger, Electrical Engineering, \$140,000 for "Laser fusion related research," with R. Fedosejevs.

P.R. Smy, Electrical Engineering, \$46,900 for the study of "Enhancement of flame and transport processes in pulsed plasma plugs."

F.F. Cantwell, Chemistry, \$20,670 to study "Free heavy metal ion speciation and complexing capacity in natural waters by ion exchange," with B.G. Kratochvil.

D.L. Rabenstein, Chemistry, \$38,690 for the study of "The chemistry of heavy metal toxicology."

R.C. Von Borstel, Genetics, \$83,000 to study "Molecular basis of mutagen action."

C. Hiruki, Plant Science, \$32,380 for "Identification and control of major virus diseases of forage legume crops."

W.A.G. Graham, Chemistry, \$35,000 for the study of "Carbon-hydrogen bond activation by transition metals."

F.D. Otto, Chemical Engineering, \$66,280 for "Selective gas treating," with A.E. Mather.

J. Tulip, Electrical Engineering, \$65,000 for the "High powered waveguide CO₂ laser."

E.M. Gates, Mechanical Engineering, \$141,070 for "Icing wind tunnel instrumentation equipment," and \$85,500 for "Marine icing," with E.P. Lozowski.

N.R. Morgenstern, Civil Engineering, \$98,392 to study "Ice rubble mechan-

ics," with D.C. Sego.

K. Muehlenbachs, Geology, \$69,444 for "An integrated study of precious and base metal mobilization in hydrothermally altered oceanic crust," with B.E. Nesbitt.

W.A. Ayer, Chemistry, \$53,000 to conduct "Phytochemical investigation

of important forest diseases" and "blue stain fungi associated with the Mountain Pine Beetle," with Y. Hiratsuka.

H.J.J. Seguin, Electrical Engineering, \$50,000 to study "glow discharge stabilization with magnetic fields," with C.E. Capjack. □

The Teacher is a Signpost Not a Destination

"Freud's theories of identification and transference have implications for us as teachers," David Wangler of Educational Foundations told 44 academics attending a CITL-sponsored seminar last week.

Comparing Freud's pessimistic view of human nature with Carl Rogers' "enormously positive" attitude to man, Dr. Wangler said that, while he regards Sigmund Freud with awe and "is not all that attracted to Rogers," nevertheless, *what* he does in the classroom is much closer to Rogers. The *why*, however, is strongly influenced by Freud's view that man is primarily an emotional being.

"The most significant aspect of education is emotional," Dr. Wangler told his audience. "Students may be coming to us, asking that we guide them, that we serve as a model for them." This is a continuation of the process of identification, whose earliest manifestation is in the acquisition of language: the child learning to talk speaks the language of his parents in the manner of his parents.

"Education is not entertainment," he stated. Although there may be humor in the process, he sees education as a serious attempt to improve another individual, in which the teacher ideally acts as a model.

Freud, observing that patients felt powerful emotions toward their therapist, believed the patient was projecting on to the therapist feelings experienced as a child toward his parents. Dr. Wangler sees reflections of this transference in the classroom, and his advice to teachers is: understand the process that's going on, and don't take it personally; do not make use of it, either, to brainwash your students. "Teachers should not want students to become disciples."

Discussing the teaching/learning process, Dr. Wangler quoted Rogers: "I cannot teach a person how to teach...no one needs to be taught anything...*learning* is important."

To establish the right conditions for learning, the teacher needs to have respect for the integrity and well-being of the student. "You must trust the student," said Dr. Wangler. "It is a much greater compliment to be trusted than to be loved."

Students are in charge of their own learning, he concluded. They will learn when they take the responsibility of learning on themselves. Establish the right conditions—trust, respect and an unconditional, positive regard—and there will be "an unbelievable outpouring of learning." □

Microfungus Collection and Herbarium Now Under 'New Management'

On 1 January, the administration of Canada's second largest culture collection of filamentous microfungi, "The University of Alberta Microfungus Collection and Herbarium," (UAMH) was transferred from the Department of Medical Microbiology, Faculty of Medicine, to the Devonian Botanic Garden, an interdisciplinary research unit within the Office of the Vice-President (Research). Established culture collections of authentic microorganisms are important to the future of biotechnological development in Canada. The UAMH is a specialized collection with a unique relationship to medical mycology. With its physical relocation to the Botanic Garden (by Spring 1986), and the consolidation of mycological expertise, the long-term objectives will be to maintain the liaison with the biological and medical communities, and to expand the Collection to provide improved services to agriculture, forestry and industrial research.

Although today regarded as comprising a separate kingdom, distinct from both plants and animals, the fungi, of which there are approximately half a million species, have long been considered members of that

plant kingdom. On observing a collection of woodland fungi, William Browne (1591-1643) wrote:

"I could not chuse but grieve, that nature made,
So glorious flowers to live in such a shade."

Like most people, Browne had no concept beyond an aesthetic one of the immense importance of his "mush-rooms" or any other fungi.

Without the nutrient recycling abilities of fungi, plant growth, upon which all life depends, would cease. Fungi also form symbiotic relationships with the roots of most plants. This alliance has had tremendous significance to the evolution and ecology of green plants. But while some of the activities of fungi encourage plant growth, many also cause severe economic losses to crops. Fungi also attack humans and other animals and there are, proportionately, as many animal-damaging fungi as fungi that attack plants. The advent of immunotherapy has caused an unprecedented increase in fungal diseases since immunocompromised individuals are highly susceptible to invasion by fungi, including usually harmless saprophytes.

Long used in commercial processes such as bread, beer, cheese and wine-making, fungi are now employed in a variety of fermentative processes that convert useless by-products, such as fish scraps and corn steep liquor, into valuable compounds such as organic acids (used in industrial and commercial processes), alcohols (solvents and explosives) and fats (soap products). Fungi are also used as "living factories" in the production of antibiotics and drugs (e.g., cyclosporin A), vitamins, enzymes, and steroids.

Research on controlling and using fungi in agriculture, medicine, and industry ultimately depends upon efficient and effective methods of identifying these taxonomically difficult organisms. Considering the importance of fungi to such a wide variety of disciplines, it is not surprising that the University of Alberta has, in transferring the collection from the Department of Medical Microbiology to the Devonian Botanic Garden, made a major commitment to the future of the UAMH.

Eighth largest in the world and sec-

ond largest in Canada, this collection of filamentous fungi contains more than 4,700 different, living genotypes and it is already an internationally and nationally recognized reference and research facility. Using techniques which ensure genetic stability, the UAMH preserves a large and unique collection of fungi important to agriculture, forestry, medicine and industry. Since its inception in 1960, the UAMH has established a respected record of cooperation with diverse areas of practical research, from the biological control of mosquitoes to the search for new antibiotics and useful

metabolites. The amalgamation of this facility with the University's Devonian Botanic Garden, which shares a common role in the collection and preservation of living organisms, will consolidate mycological expertise currently available at each of the two centres and provide improved information services and a world-class identification and depository service for fungi from virtually any organism or substrate.*□

**This article was contributed by Randy Currah, Research Associate at the Devonian Botanic Garden.*

Physics Hosts Robert L. McPherron

The University has been fortunate in being able to bring to its campus Robert McPherron, one of the world's leading space scientists. Professor McPherron, based at the University of California in Los Angeles, has worked for many years on problems related to the origin of the northern lights. After his graduation from the University of California (Berkeley) in 1968, Professor McPherron went to UCLA where he became heavily involved in the analysis and interpretation of magnetic field data from the Applied Technology Satellites (the forerunners of today's modern communications satellites). The exploration of the energetic particle and magnetic field environment at synchronous orbit provided engineers and technologists with the knowledge needed to exploit that region of space as a site for communications relay systems. Since the environment of communications satellites is often perturbed by the fluxes of energetic electrons responsible for the auroras, Professor McPherron had every reason to utilize his space measurements in the study of the development of that most explosive of auroral manifestations, the magnetospheric substorm. His early studies, marked by his identification of the growth phase of substorms, contributed markedly to our knowledge of the interaction between the solar wind and the earth's magnetic field environment which provides the energy that powers substorm processes.

Professor McPherron's studies of

the enormous data sets required to carry out studies of such global phenomena as substorms forced him to develop techniques in data base management of geophysical information which have made him an expert in data processing methods in the geophysical sciences. In this respect, he has been called upon by the National Aeronautics and Space Administration and the National Academy of Sciences of the United States to serve on committees which define the future development of data base management south of the border insofar as the geophysical sciences are concerned. On top of all his other achievements, Professor McPherron has developed expertise in exploration geophysics to the extent that he is in charge of that program of studies at his home institution in Los Angeles.

Professor McPherron, whose visit occurred 7 to 31 January, interacted closely with University of Alberta space scientists G. Rostoker and J.C. Samson. He also presented two seminars in the Department of Physics dealing with methods of defining the interaction between the interplanetary medium and the earth's environment and the physics of that interaction. Professor McPherron's visit to our University has been of great value in exposing members of the local geophysical community to the details of the most modern advances in our understanding of the earth's space environment.□

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Agriculturalist to Discuss Role of the Canadian University in Overseas Development

Robert C. McGinnis, Dean of the Faculty of Agriculture at the University of Manitoba, will discuss "The Role of the Canadian University in Overseas Development" when he visits our campus 5 February. The noted agriculturalist and international advisor

on self-sufficiency in agricultural production will be speaking in Tory Lecture Theatre B2 at 7 p.m.; all are welcome to attend.

An informal reception will be held at the Faculty Club following his lecture.

Rare Ukrainian Dictionaries Acquired

The Canadian Institute of Ukrainian Studies and the Department of Slavic and East European Studies have jointly arranged the microfilming of a collection of rare Ukrainian terminological dictionaries in the possession of Michael Pezansky, a lexicographer residing in Long Island City, New York.

The collection, which consists of 71 works on 27 reels of microfilm, includes dictionaries of the natural and physical sciences, mathematics, medicine, industry and manufacturing,

electronics, business, music, library science, education, and other disciplines. Most were produced during the period of intense lexicographic activity in the Ukrainian SSR during the 1920s and early '30s; with the onset of Russification, they became bibliographic rarities.

The collection also includes dictionaries published in Western Ukraine, Germany, Austria and Czechoslovakia. The microfilms have been transferred to the Library for cataloguing. □

Distinguished Historian to Visit Educational Foundations

Cornelius Jaenen, Professor of History at the University of Ottawa, will be a guest of the Department of Educational Foundations from 7 to 23 February. Dr. Jaenen will also visit and present lectures at Faculté Saint-Jean, the Department of History and Canadian Studies, and day-long visits to Red Deer College and Athabasca University have been planned.

An educational historian, Dr. Jaenen will give a public lecture entitled "Multiculturalism: A Historian's Perspective" at 3 p.m. on Friday, 8 February, in 129 Education North. He will discuss "Jacques Cartier's Impact Upon French Views of the New World" in N5-180 Education North on Thursday, 14 February, at 3:30 p.m. and on Wednesday, 20 February, Dr. Jaenen will speak on "Religious Minorities on the Prairies" in 165 Education North at 8 p.m. The latter lecture is sponsored jointly by Educational Foundations and the Histori-

cal Society of Alberta.

Among his other lectures and seminars are "Sovereignty and Ancestral Rights Under the French Regime," "Nationalism and Multiculturalism in Western Canada," "The Language Controversy in Manitoba," "Popular Culture in New France" and "Multiculturalism and its Implications for Education."

Dr. Jaenen received his baccalaureate and master's degrees from the University of Manitoba. He also studied at the Université de Bordeaux and obtained his doctorate from the Université d'Ottawa.

His publications include the books *Friend and Foe: Aspects of French-Amerindian Cultural Contact in the Sixteenth and Seventeenth Centuries* and *The Role of the Church in New France*.

During his visit, Dr. Jaenen will be located in Education N5-104.2 (432-3726). □

Dean McGinnis received his BA (1949) and MA (1951) from this University, and his PhD from the University of Manitoba. Over the years he has been involved with various Third World projects, such as the Directorship of the Institute for Crops Research in the Semi-Arid Tropics (ICRISAT) in India. ICRISAT's mandate is the global transfer of technology for food crops in the semi-arid tropics. It specializes in crops which are best adapted to dry conditions, such as millet, sorghums and different varieties of peas.

Dean McGinnis has also acted as the Director of the Plant Breeding Institute, where research was being conducted to improve wheat varieties for production in Kenya, and to breed in

resistance to various rust diseases. He has taken part in such major conferences as the 1972 Canadian Trade Fair in China, and the 1975 and 1977 Food and Agricultural Organization (FAO) Fairs in Kenya. He has been associated with agencies such as the International Development and Research Council in Uganda, the World Bank in China and Ethiopia, and the Canadian International Development Agency in China.

Dr. McGinnis's lecture is sponsored by the Endowment Fund for the Future, the Department of Plant Science, the Faculty of Agriculture and Forestry and the President's Advisory Committee on International Development. □

Search Committee for Vice-President (Administration)

The President will be recommending to the Board of Governors that a Vice-President (Administration) be selected to replace the Vice-President (Finance and Administration) and the Vice-President (Facilities and Services). (Vice-President R. Phillips retired last year and Vice-President L.C. Leitch will retire this summer.)

The composition of the Search Committee for Vice-President (Administration) includes two full-time faculty and one full-time APO, FSO or Librarian. Nominations for these positions are now being sought.

Written nominations supported by the signatures of five members of the full-time academic staff (not including the nominee) may be submitted to the Secretary to GFC, Ellen Solomon, 2-5 University Hall, by *Thursday, 7 February, 1985, 4:30 p.m.* Nominees must agree to stand for election to the search committee. GFC regulations require that nominees may not be holders of administrative positions, such as dean or a department chairman, since administrators are already represented on this search committee.

The composition of the Search Committee for Vice-President (Administration), together with nomination and election procedures, are contained in section 102.3 (Part II) of the GFC Policy Manual.

February 1985

January							March							April						
1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
8	9	10	11	12	13	14	8	9	10	11	12	13	14	7	8	9	10	11	12	13
15	16	17	18	19	20	21	15	16	17	18	19	20	21	14	15	16	17	18	19	20
22	23	24	25	26	27	28	17	18	19	20	21	22	23	21	22	23	24	25	26	27
29	30	31					24	25	26	27	28	29	30	28	29	30				
							31													



sunday	monday	tuesday	wednesday	thursday	friday	saturday
					1 ■ Board of Governors ■ Last day for application for degrees in Business, Education, Faculté Saint-Jean, Home Economics, Pharmacy and Pharmaceutical Science, Physical Education and Recreation, Rehabilitation Medicine, and Science to be conferred at Spring Convocation	2
3	4 ■ GFC Executive	5	6 ■ Students' Union Election Rally (classes withdrawn from noon to 1 p.m.)	7	8 ■ Until 10 February, Fifth Annual Third World Film Festival	9
10	11 ■ Until 15 February, Mid-term Test Week	12	13	14	15 ■ Senate	16
17	18 ■ Until 24 February, Second Term Reading Week (classes withdrawn for a full week) ■ GFC Executive	19	20	21 ■ Until 22 February, University Orientation Days	22 ■ Until 23 February, Jessup International Law Moot Court Competition	23 ■ Computing Science Open House '85
24	25 ■ GFC	26	27	28		

Robert Elliott: Distinguished Visitor

The Departments of Mathematics and Statistics and Applied Probability are pleased to welcome Robert Elliott as a Distinguished Visitor for the current academic year. After a bachelor's degree from Oxford and a PhD from Cambridge, Dr. Elliott held positions at Newcastle and Yale before returning to Oxford as university lecturer and Fellow of Oriel College. For the past 11 years, Dr. Elliott has held a chair at the University of Hull, England, where he is G.F. Grant Professor of Mathematics and Head of the Department of Pure Mathematics.

He is known for his work on stochastic processes and control theory, and is the author of *Stochastic Calculus and Applications*, published by Springer-Verlag in 1982. In the last two years, Dr. Elliott has held short-term visiting positions in Australia, Denmark and France.

Dr. Elliott is Chairman of the Working Group on Stochastics and Analysis of the International Federation of Automatic Control, and an Associate Editor of the journal *Stochastics*. □

Letters

Faculty Electing Deans to Board Thought Inappropriate

■ It seems to me to be most inappropriate for the faculty as a whole to elect deans as its representatives to the Board of Governors. Deans must represent special interests and must clearly operate within administrative guidelines. This seems to me to be contrary to the usefulness to the professors of having their own representatives on the board, to provide opinion which is not administratively biased, but which may lead to new administrative procedures, and is not directed towards the special interests of one subject-defined group, but which echoes general professional points of view. For professors to elect a dean to the Board of Governors is roughly analogous to students electing a

professor—after all, students and professors do share the same classes.

Of all the academic positions in the University, the dean's is perhaps the most clearly defined: to administer a group of colleagues and seek the best for them, in competition with his decanal friends and rivals. To agree to be a dean has always appeared to me to agree to restrict one's activity to a special (albeit important) sphere, at least in the sense of taking on a pretty specific responsibility. That, of course, should not inhibit the dean, in any way, from holding and expressing wider opinions, but I daresay they are seldom the opinions of the professoriate, in terms of the good of the establishment. They will be deanly opinions, colored by a deanly point of view. I see no objection to Deans' Council having a representative on the Board of Governors: such a person could provide an important point of view. But that point of view probably would not be the one expressed by a rank-and-file professor.

I am astounded that five out of 12 nominees from a professorial staff of 1,545 are or were deans. Are we really so dependent on them? Our continuing representative is a dean. Do we insist on voicelessness, or do most of us really want to be deans?

J.R. Nursall
Professor of Zoology

people

Alvin M. Schrader (Library Science) gave an invited presentation on 3 January to the Research Session of the annual conference of the Association for Library and Information Science Education, in Washington, D.C., on "A Bibliometric Study of the *Journal of Education for Librarianship*, 1960-1984."

L.A. Kosinski (Geography) participated in a Seminar on Immigration and Demographic Trends organized by the Department of Employment and Immigration in Montreal. The seminar was part of an on-going process of consultations initiated by a new Minister as a prelude to a possible change in immigration procedures and/or policies. As President of the Canadian Population Society, Dr. Ko-

sinski represented this professional organization at the meeting.

The Edmonton Council For Advanced Technology toured the Microelectronics Research Facility, the Alberta Microelectronic Centre and the Laser Facility on 23 January. Henry Baltes (Henry Marshall Tory Professor) and John Tulip (Electrical Engineering) presented talks on "Microchip Design and Processing" and "The Laser Program at the University of Alberta," respectively.

The January issue of *Runner's World* contains a piece by *Globe and Mail* science reporter Stephen Strauss on research being conducted by Lawrence Wang (Zoology) and Angelo Belcastro (Physical Education and Sport Studies). The article, entitled "Adjusting Nature's Thermostat," is on methods of enhancing the body's cold-fighting mechanisms.

L.C. Green (University Professor) attended the meetings of the International Law Advisory Panel in London, England, and presented a paper on "Recent Developments Regarding Terrorism."

Recent European performances of works by Alfred Fisher (Music) include Arthur Rowe, Canadian pianist, in performances of *Six Aphorisms* in London and Paris in concerts sponsored by the Department of External Affairs, and David Burge, Eastman School of Music, in performances of *Fantasypieces* in Copenhagen and Stockholm.

service information

All information to be included in this column must reach the Office of Community Relations by 9 a.m. the Thursday prior to publication.

Coming Events

Lectures and Seminars

Medicine

1 February, 8 a.m. P. Crockford, "Sex Hormones and the Brain: Problems as Diverse as the Premenstrual Syndrome and Transsexualism." 2-115 Clinical Sciences Building.

1 February, noon. John Burkart, "Morbidity Survey of U.S. Oil Shale Workers." 13-101 Clinical Sciences Building.

Chemistry

31 January, 7:30 p.m. Peter Fensham, Dean, Faculty of Education, Monash University, Australia, "Conceptions, Misconceptions, and Alternative Frameworks in Chemical Education." E1-60 Chemistry Building.

Faculté Saint-Jean

31 janvier, 8 p.m. Conférence de M. François Ribordy (sociologue, Université Laurentienne): "Criminalité et Justice." Salle 120, Faculté Saint-Jean, 8406-91e rue.

Geography

1 February, 2 p.m. Catherine LaFarge-England, "Botanical Studies on a Well Vegetated Upland, Northern Ellesmere Island." 3-36 Tory Building.
8 February, 2 p.m. Brian Szuster, "Stratigraphy of a Small Raised Marine Delta, Otto Fiord, Ellesmere Island." 3-36 Tory Building.
8 February, 3 p.m. Andrew M. Kirby, University of Colorado, "The Space of Economy Concept." 3-36 Tory Building.

Zoology

1 February, 3:30 p.m. S.K. Malhotra, "A New 'Marker' for Astrocytic Cells Recognized by Monoclonal Antibodies." 345 Earth Sciences Building.

Plant Science

4 February, 1 p.m. Kris Pruski, "Shikimic Acid Pathway in Secondary Plant Metabolism." 1-06 Agriculture-Forestry Centre.
5 February, 7 p.m. Robert McGinnis, Dean, Faculty of Agriculture, University of Manitoba, "The Role of the Canadian University in Overseas Development." B-2 Tory Lecture Theatre.

Faculty of Education

4 February, 7 p.m. Rex Nettleford, Dean of Extramural Studies, University of the West Indies, "Contemporary Caribbean Affairs." 2-115 Education North.

Soil Science

5 February, 12:30 p.m. C. Maulé, "Techniques of Estimating Unsaturated Hydraulic Conductivity and Their Success." 1-103 Tory Building.
12 February, 12:30 p.m. D. Gower, "A Comparison of N and S Mineralization." 1-103 Tory Building.

Music

5 February, 2 p.m. George Arasimowicz, "The Selling of Sound." 1-29 Fine Arts Building.
12 February, 2 p.m. Brenda Dalen, "Alban Berg's Chamber Concerto Op. 15." 1-29 Fine Arts Building.

Mathematics

5 February, 3 p.m. Miklos Farkas, Budapest University of Technology, Hungary, "Competitive Exclusion by Zip Bifurcation." 657 CAB.

Forest Science

6 February, noon. Robert Graham, "People Management in the National Parks and Forest Recreation Areas." 3-1 Mechanical Engineering Building.

Botany

6 February, 4 p.m. Stephen Goudy, "Small Plants—Heavy Metals—Toxic Woes." M-137 Biological Sciences Building.

Clothing and Textiles

5 and 12 February, 7 p.m. "Quilts: Examination, Care and Conservation." \$30 registration fee. For

further information, call A. Lambert, 432-2528. B-14 Home Economics Building.

Law

5 February, 8 p.m. L.C. Green, "Is There a Universal International Law?" 237 Law Centre.

Salter Reading Series

7 February, 12:30 p.m. Student reading including Paulette Dube, Lenard Wyatt (poetry) and Geoff Jackson (fiction). 2-42 Humanities Centre.

Philosophy, Religious Studies and the Medieval Guild

7 February, 3:30 p.m. Eleonore Stump, Virginia Polytechnical Institute and State University, "Dante, Hell, Aquinas's Moral Theory and the Love of God." L-2 Humanities Centre.

Secondary Education

7 February, 6 p.m. John Mallea, Department of Sociology of Education, Ontario Institute for Studies in Education, "Teacher Education for a Multicultural Society." 333a Education South.

International Students Centre and the African Association of Alberta

7 February, 6 p.m. "Development and Underdevelopment in Africa." Presentations at this seminar will focus mainly on the social sciences. 1-09 Business Building.

History

8 February, 3:05 p.m. D.C. Johnson, "Reyes Gonzalez Hermanos: Business and Capital Formation in the Colombian Andes, 1882-1910." 2-58 Tory Building.

International Students

13 February, 7 p.m. John Eagle, "Historical View." One in a series of seminars on Canada. International Student Centre, 11023 90 Avenue.

Independent Schools

21 February, 7 p.m. Howard Dixon, Head, Queen Margaret's, Duncan, B.C., "North America Shifts Towards Independent Schools." To attend, advise B. Day (425-4180, 432-1950) before 18 February. Faculty Club.

Department of Music

All events take place in Convocation Hall.

31 January and 1 February, 8 p.m. Opera Performance. Directed by Alan Ord and Alfred Strombergs. Tickets available at the Department of Music.

3 February, 8 p.m. St. Cecilia Orchestra with Malcolm Forsyth, conductor.

8 February, 8 p.m. Senior Student Recital—John Newman, clarinet.

Films

Germanic Languages

13 February, 7:30 p.m. "Der Attentat" (1969). Arts 17.

Radio and Television

Radio

All programs broadcast on CKUA radio 580 AM and 94.9 FM.

2 February, 7 p.m. University Concert Hall presents Program III of the Bach Organ Series with guest organist Bernard Lagacé.

Television

All programs broadcast on Shaw-22 and QCTV-19.

6 February, 7:30 p.m. "Canada, The World and The Future: What is Life? What is Death?" Herman Feifel, Chief Psychologist, VA Outpatient Clinic, Los Angeles.

6 February, 8 p.m. "Vital Signs—Transplants: A Chance for the Living." A look at medical advancement that has made great strides in the areas of organ and tissue transplants.

Sports

Hockey

1 and 2 February, 7:30 p.m. Golden Bears vs. University of British Columbia. Varsity Arena.

Volleyball

2 February, 6:30 and 8 p.m. Golden Bears and Pandas vs. Saskatchewan. Varsity Gym.

Basketball

8 February, 7 p.m. Pandas vs. University of British Columbia. Varsity Gym.

8 February, 8:45 p.m. Golden Bears vs. University of British Columbia. Varsity Gym.

9 February, 7 p.m. Pandas vs. University of Victoria. Varsity Gym.

9 February, 8:45 p.m. Golden Bears vs. University of Victoria. Varsity Gym.

Swimming

9 February, 9 a.m. Golden Bear Sprint Invitational. West Pool.

Theatre

Faculté Saint-Jean

Until 3 February. "The Little Prince." For further information, telephone 469-0829.

Notices

Campus Reviews

As part of the process of carrying out systematic reviews under the guidance of the President's Advisory Committee on Campus Reviews (PACCR), the Department of Electrical Engineering is completing the self-study phase of the review process. The other major phase of the process is the site visit and assessment by the Unit Review Committee. In preparation for this second phase, PACCR invites written comment prior to 28 February 1985.

Submissions are for the use of the Unit Review Committee and will be held in confidence by the members of that committee. Submissions should be sent to: Mrs. L. Pearson, PACCR Office, W4-13 Chemistry Building, Attention: The Electrical Engineering Unit Review Committee.

Update to 'What Good Teachers Say About Teaching'

Some weeks ago, a CITL panel presentation with five recipients of the Rutherford Award for Excellence in Undergraduate Teaching and moderator Myer Horowitz was videotaped by the Department of Radio and Television. The tape is available for those who were unable to attend the session or those who may wish to review the panel presentation.

For further information and appointment, kindly telephone Radio and Television, 432-4962.

Selection Committee for Chairman of Sociology Now Meeting

The Chairman Selection Committee for the Department of Sociology is now holding its meetings. Interested persons who want to convey their input to the committee are invited to do so by writing to its chairman, S. Qureshi, Associate Dean of Arts.

See You at the Power Plant

All academic and non-academic staff will be admitted free to the Power Plant during membership hours. (University of Alberta identification will be required at the door.)

Staff can take advantage of the open door policy until 30 April 1985.

Nominations Sought for YWCA's 'Tribute to Women' Awards

The outstanding contributions made by women to the Edmonton community will be hailed at the YWCA's triennial "Tribute to Women" Awards ceremony, 8 May at the Westin Hotel.

Nominees will have made a significant or outstanding achievement through their own initiative, ability and effort in the workplace or in a voluntary capacity. As a result of their personal efforts the lives of others in Edmonton will have been enriched. Categories are: "Women in the Arts," "Women in Business, Industry and Professions," "Women in Community Service," "Women in Health and Fitness," and "Women in Public Affairs." Nomination kits are available by calling the YWCA at 423-9922. The deadline for nominations is 8 February.

Past recipients of the award include Shirley Stinson, Associate Dean of Nursing, Saretta Sparling, former Dean of Women at the University, and Jean Lauber, Professor of Zoology.

Surplus Equipment

The equipment appearing in this column is available only to University Departments with University administered funds. For further information about the purchase of equipment or the disposal of your department's surplus equipment, contact Jody Brookwell or Roy Bennett, telephone 432-3208.

For Sale: (1) Apple III, 128K c/w Disk Drives and NEC 12" Character Display
For more information, telephone A. Rhemtulla, 432-4565.

For Sale: (1) Drafting table (Nike-Architect)
(1) Drafting machine (Vard 321-3202)
(1) Dryedge 2436 - Print Dryer
(2) Varsity Fonts
For more information, telephone Judi Ross, Technical Services (Graphics), 432-3461.

Positions Vacant

The University of Alberta is an equal opportunity employer but, in accordance with Canadian Immigration requirements, these advertisements are directed to Canadian citizens and permanent residents.

Director and Staff For Research Group in Cardiovascular Regulation

The Faculty of Medicine is seeking a Director and other staff for a research group in Cardiovascular Regulation primarily concerned with the clinical

and mechanistic aspects of the cardiovascular actions of adenosine and related compounds. This group will be sponsored by the Department of Pharmacology and the Division of Cardiology of the Department of Medicine and support will be sought from the Alberta Heritage Foundation for Medical Research.

The Director will be supported as a career scientist with the rank of professor. Minimum salary for a professor is currently \$48,010 Can. Other staff will be supported at the appropriate rank; minimum salary for an associate professor is \$37,420 Can.; minimum salary for an assistant professor is \$29,720 Can. Applicants should have a PhD or MD Degree, proven research experience in an area relevant to the proposed studies and outstanding potential for original high-calibre research.

Those interested should apply in writing, enclosing a curriculum vitae, the names of at least three referees, and any other relevant information to: Dr. David A. Cook, Department of Pharmacology, University of Alberta, Edmonton, Alberta, Canada T6G 2H7. Telephone: (403) 432-3575.

Applications must be received prior to 31 March 1985.

Non-Academic Positions

A hiring freeze was put in place 21 November 1984. This affects all Non-Academic vacancies previously advertised with the exception of positions funded from Trust/Research accounts and temporary positions.

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, 2-40 Assiniboia Hall, telephone 432-5201. Due to publication lead time and the fact that positions are filled on an on-going basis, these vacancies cannot be guaranteed beyond 18 January 1985. For a more up-to-date listing, please consult the weekly Employment Opportunities Bulletin and/or the postings in PSSR.

Positions available as of 25 January 1985.

Laboratory Assistant II (\$1,161-\$1,442) Provincial Laboratory of Public Health
Clerk Typist II (\$1,161-\$1,442) Provincial Laboratory of Public Health
Clerk Steno III (Trust) (\$1,294-\$1,625) Biochemistry
Clerk Typist III (\$1,294-\$1,625) Faculté Saint-Jean
Medical Stenographer (Term to 31 March 1985) (\$1,442-\$1,842) Medicine
Biology Technologist I (Trust) (\$1,697-\$2,182) Zoology
Chemical Technologist I/II (Trust) (\$1,697-\$2,182) Foods and Nutrition
Biochemistry Technologist I (Trust) (\$1,697-\$2,182) Cancer Research Group
Laboratory Technologist I (\$1,842-\$2,378) Provincial Laboratory of Public Health
Chemical Technologist II/III (Trust) (\$1,697-\$2,834) Foods and Nutrition
Electronics Technician III (Term to 31 March 1985) (\$2,003-\$2,596) Mineral Engineering
Laboratory Technologist II (\$2,003-\$2,596) Provincial Laboratory of Public Health

For vacant library positions, please contact the Library Personnel Office, Basement, Cameron Library, telephone 432-3339.

Advertisements

Advertisements must reach the Editor by 3 p.m. on the Thursday prior to publication date which date also serves as the deadline for cancellation of ad-

vertisements. The cost of placing advertisements is 30 cents per word with no discount for subsequent insertions. There is a maximum limit of 30 words and a minimum charge of \$1.50. Contributors' corrections will be assessed at \$1.50 for each line in which an insertion is made. Advertisements cannot be accepted over the telephone. All advertisements must be paid for in full at the time of their submission.

Accommodations available

For sale - Beautiful, upgaraded bungalow near University farm (Malmo), finished basement with "nanny suite", hardwood living/dining floors. Double garage, nice yard and more. Asking \$84,000. 436-4013.

Sale - 11214 71 Avenue. Ideal crescent location. Three-bedroom, semi-bungalow, featuring spacious rooms, lots of storage areas, nice sauna in basement. Phone Joy Murray, NRS Realty Centre. 463-9323.

Private sale - Parkdale. Attractive, three-bedroom bungalow. Hardwood floors. Fireplace. Brick patio. Landscaped garden. Appliances. New cedar shingle roof. Finished basement. \$76,000. 439-5318. Leave message.

Rent - By day or week. Mountain chalet, just outside Jasper Park gate. Fully furnished. Ideal for up to six persons. Reasonable. 435-6504.

For quick sale - \$59,000. Easy access University. Sparkling bungalow, hardwood floors, spacious kitchen. Revenue suite down, two fridges, two stoves, all drapes. Call Joyce Byrne, 435-6064, 436-5250. Spencer's.

Sale - Classic, two-storey. Riverbend, formal dining room, five bedrooms plus den. 2,800 sq. ft. Lots of custom extras. \$219,000, offers? Call Joyce Byrne, 435-6064, 436-5250. Spencer's.

Sale - Mill Creek location. 1,200 sq. ft. Semi-

bungalow features fireplace, patio doors to deck, newer garage with a loft studio. Call Luella at ReMax Real Estate, 468-3322 or 469-1838.

Sale - Ravine location. Custom-built, unique bungalow, facing ravine. Park-like back yard with southern exposure. Main floor laundry and sewing area. Call Luella, ReMax Real Estate, 468-3322 or 469-1838.

Trade - We want to trade our home southwest of University for smaller, also in southwest. Have four-bedroom, two-storey with family room, three baths, double garage in crescent. Seek smaller. 432-2332, 437-5588.

Accommodations wanted

If you need a dependable person to house-sit for you during your study leave, phone Jim Choles, 427-7044 (days), 433-0855 (evenings).

House wanted for private purchase in University area. Three bedrooms necessary. Terms and occupancy are flexible for right house and price. 433-5502.

Goods for sale

Paintings, other art: Gissing, Murray MacDonald, other Canadian artists; Japanese stencils; Chinese embroideries. Phone 433-2932.

Services

Donnic Word Processing. Specializing in theses, manuscripts, etc. 8315A 105 St. 432-1419. Singing teacher, Eileen Turner, 439-4661. Quaker worship, Sundays, 11 a.m. Soroptimist Room, YWCA. 100 Ave. 103 St. Piano and theory teacher, Lillian Buckler, 435-8134, Blue Quill area.

Professional typist - Word processing. Specializing in theses and dissertations. Gwen, 467-9064. Word Processing, reasonable rates, near Bonnie Doon. Call Hanna at 469-7214. Y.K. Language Services. General, semi-scientific and medical translating and interpreting. Reasonable rates. 435-0252. Alcoholics Anonymous meets on campus. For information, call 482-6783, 10 a.m. to 4 p.m.

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Previewing: February 22nd - 4:00 p.m.

Partial Listing

IBM Typewriters, Mag Card Typewriter, Stage Light Dimmer Control, Automotives supplies, Postage scale, wooden bookshelves, computers, curtains, calculators, blackboards, tape recorders, beauty culture chairs, hair dryers, stoves, tables, chairs, industrial art equipment, overhead projector, drafting equipment, sewing machines, reel to reel tape recorders, and much, much, more

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